

AMENDMENTS TO THE CLAIMS

Claims 1-4 have been amended and new claims 5-12 have been added. A listing of the claims follows and replaces all prior listing of the claims.

LISTING OF THE CLAIMS

Claim 1 (Currently amended): A semiconductor light emitting device, comprising:

a semiconductor light emitting portion;

a front surface electrode provided on one side of the semiconductor light emitting portion;

an electrically conductive substrate which is provided on the other side of the semiconductor light emitting portion, ~~the electrically conductive substrate being , which~~ is transparent to a wavelength of light emitted from the semiconductor light emitting portion, and which has front and back surfaces;

a rear surface electrode ~~having a pattern~~ in ohmic contact with a first region of ~~[[a]] the~~ back surface of the electrically conductive substrate opposite from the semiconductor light emitting portion and having a pattern which is a continuous line distributed on the entire back surface of the substrate; and

a rear surface insulation layer which covers ~~covering~~ a second region of the back surface of the electrically conductive substrate other than the first region, and ~~which is the rear surface insulation layer being transparent to the wavelength of the light~~

emitted from the semiconductor light emitting portion.

Claim 2 (Currently amended): ~~[[A]] The~~ semiconductor light emitting device as set forth in claim 1, further comprising a reflection layer which is composed of an electrically conductive material, which is deposited in contact with ~~as contacting~~ the rear surface electrode, which covers ~~and covering~~ the rear surface electrode and the rear surface insulation layer, and which has ~~the reflection layer having~~ a greater reflectivity with respect to ~~the wavelength of~~ the light emitted from the semiconductor light emitting portion than the rear surface electrode.

Claim 3 (Currently amended): ~~[[A]] The~~ semiconductor light emitting device as set forth in claim 1, wherein the electrically conductive substrate is a silicon carbide substrate comprised of silicon carbide having a dopant content controlled so that the substrate has a resistivity of 0.05 Ω cm to 0.5 Ω cm.

Claim 4 (Currently amended): ~~[[A]] The~~ semiconductor light emitting device as set forth in claim 1, wherein the front surface electrode comprises a transparent electrode film provided in contact with the semiconductor light emitting portion and composed of an electrically conductive material which is transparent to the emitted light emitted from the semiconductor light emitting portion wavelength.

Claim 5 (New): The semiconductor light emitting device as set forth in claim 1, wherein the continuous line of the pattern of the rear surface electrode is configured in a honeycomb pattern distributed on the entire back surface of the substrate.

Claim 6 (New): The semiconductor light emitting device as set forth in claim 1, wherein the continuous line of the pattern of the rear surface electrode includes (a) a plurality of line segments defining a hexagonal pattern surrounding a center region of the back surface and (b) a radial line pattern including line segments respectively extending radially from the vertices of the hexagonal pattern.

Claim 7 (New): A semiconductor light emitting assembly, comprising:

- a mounting board;

- a semiconductor light emitting device mounted on the mounting board; and

- an electrically conductive blazing material provided between the mounting board and the semiconductor light emitting device for bonding the semiconductor light emitting device to the mounting board,

- wherein the semiconductor light emitting device is comprised of:

- a semiconductor light emitting portion;

- a front surface electrode provided on one side of the semiconductor light emitting portion;

- an electrically conductive substrate which is provided on the other side of the

semiconductor light emitting portion, which is transparent to light emitted from the semiconductor light emitting portion, and which has a front surface and a back surface which faces the mounting board;

a rear surface electrode in ohmic contact with a first region of the back surface of the electrically conductive substrate opposite from the semiconductor light emitting portion and having a pattern;

a rear surface insulation layer which covers a second region of the back surface of the electrically conductive substrate other than the first region, and which is transparent to the light emitted from the semiconductor light emitting portion; and

a reflection layer which is deposited in contact with the rear surface electrode, which covers the rear surface electrode and the rear surface insulation layer, which has a greater reflectivity with respect to the light emitted from the semiconductor light emitting portion than the rear surface electrode, which has an interface with the blazing material disposed between the reflection layer and the mounting board, and which is composed of a material which is electrically conductive and which has a reflectivity observed at an interface between the rear surface insulation layer and the material that is higher than a reflectivity observed at an interface between the surface of the electrically conductive substrate and the blazing material with respect to the light emitted from the semiconductor light emitting portion.

Claim 8 (New): The light emitting assembly as set forth in claim 7, wherein the electrically conductive substrate is a silicon carbide substrate comprised of silicon carbide having a dopant content controlled so that the substrate has a resistivity of $0.05\Omega\text{cm}$ to $0.5\Omega\text{cm}$.

Claim 9 (New): The light emitting assembly as set forth in claim 7, wherein the front surface electrode comprises a transparent electrode film provided in contact with the semiconductor light emitting portion and composed of an electrically conductive material which is transparent to the light emitted from the semiconductor light emitting portion.

Claim 10 (New): The light emitting assembly as set forth in claim 7, wherein the pattern of the rear surface electrode is a pattern which is a continuous line distributed on the entire back surface of the substrate.

Claim 11 (New): The light emitting assembly as set forth in claim 10, wherein the continuous line of the pattern of the rear surface electrode is configured in a honeycomb pattern distributed on the entire back surface of the substrate.

Claim 12 (New): The light emitting assembly as set forth in claim 10, wherein the continuous line of the pattern of the rear surface electrode includes (a) a plurality of line

segments defining a hexagonal pattern surrounding a center region of the back surface and (b) a radial line pattern including line segments respectively extending radially from the vertices of the hexagonal pattern.